

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**B.PHARM. DEGREE EXAMINATION – July 2021  
Fifth Semester**

**MEDICINAL CHEMISTRY - II**

Time : Three hours

Maximum: 75 marks

- I. Write essays on any **TWO** questions: (2 x 10 = 20)
1. a) Classify alkylating agents with structures. (4)  
b) Describe the mechanism of action and structure activity relationship of alkylating agents. (6)
  2. a) What are antihypertensive agents? (2)  
b) Classify them with examples. (4)  
c) Outline the synthesis of methyl dopate hydrochloride. (4)
  3. a) What are local anesthetics? Classify them with examples. (6)  
b) Outline the synthesis of procaine. (4)
- II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)
4. Chemistry of loop diuretics.
  5. Structure and therapeutic uses of lidocaine hydrochloride, sotalol, digoxin and methadone.
  6. Outline the synthesis and mechanism of action of methimazole.
  7. Write short notes on drugs used in erectile dysfunction.
  8. Structure and therapeutic uses of any four corticosteroids.
  9. Write a note thyroid drugs.
  10. Write the chemical structure and use of a) Acetazolamide  
b) Mercaptopurine c) Dibucaine
  11. Describe the structure activity relationship (SAR) of progesterones.
  12. What is hyperglycemia? Write the mechanism and synthesis of tolbutamide.
- III. Write short notes on : (10 x 2 = 20)
13. Mechanism of action of H<sub>2</sub> antagonists.
  14. Write the structure and use of sildenafil.
  15. Synthesis of furosemide.
  16. Any two synthetic estrogens.
  17. What are vasodilators?
  18. Synthesis of tolbutamide.
  19. Any two ACE inhibitors.
  20. Classify anti hyperlipidemic agents.
  21. Synthesis of chlorthiazide.
  22. Mechanism of action of digoxin.